Brett G. Garcia

CONTACT INFORMATION

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FIELDS OF EXPERTISE

Industrial Organization, Applied Econometrics, Applied Microeconomics, Transportation

EDUCATION

University of Oregon — Eugene, Oregon

Ph.D. Candidate, Economics (expected 2021)

- Dissertation Title: "Essays in Transport Economics"
- Dissertation Advisor: Professor Wesley Wilson

M.S., Economics — 2017

University of Utah — Salt Lake City, Utah

M.S., Economics — 2016

- Advisor: Professor Mark Glick

California State University Chico — Chico, California

B.A., Economics — 2011

WORKING PAPERS

Prices, Costs, and Markups for Differentiated Rail Networks: Reevaluating Market Dominance
Job Market Paper

Regulators of the railroad industry are tasked with protecting captive shippers from excessive rates for shipments in which the railroad is market dominant, defined as an absence of effective competition from intramodal and intermodal competition. This task requires accurate measures of shipment-specific costs, markups, and how these markups relate to competing modes of transport. However, the current regulatory accounting approach of allocating costs and markups is inadequate and heavily criticized. In contrast to the academic literature, which is aggregate in nature and estimates the average cost and markup over the network, I develop a method to measure costs and markups in a way that retains their disaggregate properties. I adapt and apply a quadratic cost function that provides shipment-specific costs and markups and use these results to explore market dominance, wherein the markup and the presence of competing modes of transport determine whether shippers may be eligible to contest the reasonableness of the rate. I find that rail markups are robustly partially correlated with the number of competing Class 1 railroads within 10 miles of the origin-destination, the number of all railroads within 40 miles of the origin, as well as the distance from the origin-destination to the nearest port. The results suggest an interaction between intermodal and intramodal competition, where nearby ports decrease the impact of rail competition on rail markups. While current market dominance analysis relies on subjective testimony from an expert witness, my model provides an empirical analysis of how the presence of competing modes of transport impact shipment-specific markups. This approach can be operationalized by regulators and market participants to assess the reasonableness of a rate and to streamline and expedite market dominance inquiry.

A Multiproduct Cost Function for Railroads and the Curse of Dimensionality

In this paper, I adapt and apply a technique for estimating multiproduct cost functions in the railroad industry. Historically, regulators have relied on an accounting cost allocation procedure to determine whether railroads are exploiting their market power and charging excessive rates. But, the current regulatory approach has been heavily criticized. In this application, develop and estimate a model of costs in the attribute space instead of the product space, which allows product specific marginal costs to be estimated. This approach provides a solution to handle the large number of product-origin-destination combinations. Implementing the model in this way allows shipment specific costs to be estimated while also incorporating the shared network technology inherent in railway networks. The result can be used in conjunction with rates to identify excessively high rail rates, it can also be used to estimate the costs attached to a specific rail movement which can be important for shippers in negotiating rate under contracts; shippers can use it to evaluate eligibility for rate relief. Railroads can operationalize this method to set more competitive rates and avoid the dispute resolution process.

Nowcasting Waterbornce Commerce: a Bayesian Model Averaging Approach
with Jeremy Piger and Wesley Wilson (under review)

In this paper, we use Bayesian techniques to develop nowcasts for the quantity of waterborne traffic in the United States in total and for the four primary commodities. These waterborne traffic levels are released with a considerable time lag, but yet are of current interest. Nowcasts (i.e. predictions of the waterborne traffic levels to be released based on other variables that are available) have been constructed using an array of different variables and techniques. However, the large number of potential predictor variables and changes in the distribution of traffic levels leads to both model and estimation uncertainty, which hampers the accuracy of these existing nowcasts. We use Bayesian Model Averaging (BMA) to create nowcasts, which confronts model and estimation uncertainty directly via the averaging of models with different sets of predictors. We also use rolling window techniques to account for possible changes in the nowcasting relationship over time. Based on a variety of evaluation metrics, we find that BMA substantially improves nowcast accuracy.

Works in Progress

In Search of Peace and Quiet: Do Short-Term Rental Restrictions Improve Housing Affordability?
with Keaton Miller and John Morehouse

An Evolving Relevant Market: Hotel Mergers and the Rise of Airbnb
with Keaton Miller

Presentations

American Economic Association CSMGEP Dissertation Session (online)	2021
Western Economic Association Annual Conference (online)	2020
Microeconomics Group at University of Oregon	2019, 2020
Industrial Organization Workshop at University of Oregon	2018

Honors and Awards

Graduate Teaching Fellowship	2016 - 2021
Kleinsorge Summer Research Award	2020
Graduate Teaching Initiative Teaching Engagement Program	2020
Omicron Delta Epsilon Honor Society	2016
Golden Key International Honour Society	2016

University and Department Service

Clark Honors College Thesis Advisor at the University of Oregon	2020 - 2021
Founded/Organized Applied Microeconomics Workshop at University of Oregon	2020
Faculty Evaluation Committee Member at the University of Utah	2014 - 2015

Professional Experience

Forensic Analyst — 2016
Civil No. 110918426 — Los Angeles, California

Analyst — 2016
National Football League — Culver City, California

Analyst — 2015 - 2016
Emperitas — Salt Lake City, Utah

Revenue Coordinator — 2011 - 2014
Montage Deer Valley — Park City, Utah

Teaching Experience

University of Oregon — Eugene, Oregon

Instructor of Record

- EC 360 Industrial Organization, Antitrust (online) — Spring 2020, Fall 2020
- EC 360 Industrial Organization, Antitrust — Spring 2019, Winter 2020
- EC 460 Theory of Industrial Organization — Summer 2019
- EC 340 Public Economics — Summer 2018

Discussion Section Leader

- EC 202 Principles of Macroeconomics — Winter 2017, Winter 2019
- EC 201 Principles of Microeconomics — Spring 2017

Teaching Assistant

- EC 333 Resource and Environmental Economics — Fall 2016, Fall 2018
- EC 535 Natural Resource Economics — Fall 2018
- EC 201 Principles of Microeconomics (online) — Fall 2017, Winter 2018, Spring 2018
- EC 202 Principles of Macroeconomics (online) — Fall 2017, Winter 2018, Spring 2018
- EC 380 International Economics (online) — Fall 2017, Winter 2018, Spring 2018
- EC 330 Urban Economics — Spring 2018
- EC 421 Introduction to Econometrics II — Winter 2018
- EC 551 Labor Economics — Fall 2017
- EC 311 Intermediate Microeconomics — Fall 2016

National Collegiate Athletic Association — Salt Lake City, Utah

Student-Athlete Tutor

- Statistics, Mathematics, and Econometrics — Fall 2014, Spring 2015, Fall 2015, Spring 2016

Computer Skills

- R, Matlab, Stata, Stan, Microsoft Office, LaTeX

References

Professor Wesley W. Wilson
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Veritas Forensic Economics
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